

REMARKS

STATUS OF THE APPLICATION

The application was appealed. In view of the Examiner's Answer, Applicants decided additional amendments to the claims would forward prosecution of the application and are filing a Request for Continued Examination.

Claims 11, 12, 16, and 19-21 are pending in this application. Claims 11, 12, and 16 have been amended. Claim 19 was previously presented. Claim 20 is an original claim. Claim 18 was cancelled and the other Claims 1-10 had previously been cancelled.

Support for the amendments to Claims 11 and 12 is on page 2, line 36 to page 3, line 17 and page 4, lines 26-31.

In the final rejection, Claims 11, 12, 16, and 19-21 were previously rejected under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a).

RESPONSE TO REJECTION OVER U. S. PATENT 6,063,448 TO DUECOFFRE, ET AL. UNDER 35 U.S.C. § 102(B) OR ALTERNATIVELY UNDER 35 U.S.C. § 103(A)

Claims 11, 12, 16, and 18-21 have been rejected under 35 U.S.C. 102(b) as anticipated by U.S. Patent 6,063,448 to Duecoffre, *et al.* (hereinafter "Duecoffre") or in the alternative as obvious under 35 U.S.C. 103(a).

Applicants have amended claims 11 and 12 to obviate the anticipation rejection based Duecoffre. Claims 16 and 19-21 have not been amended but are dependent directly on claim 12 and are not anticipated by Duecoffre.

In the Examiner's Answer and in the final rejection, the Examiner's position was that the polyester (b) of Duecoffre disclosed the Applicants' non-aromatic polyester (a) component of the coating composition used in Applicants process. Applicants have amended the claims in regard to the polyester (a) component to a polyester consisting of "at least one cycloaliphatic polyol having 3 to 6 hydroxyl groups" and "at least one dicarboxylic acid". Applicants' polyester (a) has a high hydroxyl functionality from 4.5 to 10.

The amendment to the claims for the (b) component of Applicants' composition is directed to components that are clearly outside of the hybrid polymers taught by Duecoffre. As has been previously pointed out, the hybrid polymers used

in Duecoffre are different from a simple physical mixture of a (meth)acrylic copolymer and polyester polyol of Applicants' invention. Duecoffre's clear coat contains a hybrid binder comprising polyester polyol as one part, and the (meth)acrylic copolymer as the second part and a polyester which as pointed out above is not the polyester (a) of the composition used in Applicants' process.

In Duecoffre, the (meth)acrylic copolymer portion has been prepared by free-radical polymerization in presence of hydroxy-functional polyesters to give a hybrid polymeric system. In the present invention, to the contrary, the binder is a simple physical mixture components. The degree of entanglement of the two different polymer chains is greater in the hybrid polymer system (Duecoffre) and the polymers may be covalently bonded in comparison to the simple physical mixture of two polymers (of the present invention).

In regard to the obviouness rejection based on Duecoffre, Duecoffre's polyesters are ordinarily known polyesters. The polyesters claimed in the present invention with the specific combination of limitations cannot be found in Duecoffre. A hypothetical person skilled in pertinent art, desirous of developing polyester-based clear coat with the advantageous properties described in the present application, would not look into Duecoffre as closest prior art. Nevertheless, if the skilled person were to do so, he/she would not find any suggestion or combination in Duecoffre's disclosure describing the limitations claimed in the present invention. If such person were to look at polyesters described in Duecoffre's Example in order to find the best mode polyesters, such polyesters, however, would teach in a different quantitative range from our specifically limited polyesters.

Further, Applicants call the Examiner's attention to Example 1, in particular Table 1 (see page 10 of the specification). Six clear coating compositions were prepared. Composition 1-3 used a polyester polyol (b) only which is outside of the scope of amended Claims 12 and 13 and Compositions 4-6 used a combination of polyesters within the scope of the Claims 12 and 13. The physical properties of Compositions 4-6 were in all cases significantly superior to Compositions 1-3. See in particular, mar resistance, tree resin resistance, sulfuric acid etch resistance, and solvent resistance (FAM test). The teaching of Duecoffre certainly do not teach or suggest that such surprising improved physical properties can be obtained with Applicants' invention.

The anticipation rejection and obviousness rejection base on Duecoffre should be withdrawn and the claims allowed.

(II) U. S. PATENT 4,880,890 TO MIYABAYASHI, ET AL. AND U. S. PATENT 5,397,638 TO MIKI, ET AL.

Claims 11, 12, 16, 18-21 were rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent 4,880,890 to Miyabayashi, *et al.* (*hereinafter* "Miyabayashi") in view of U. S. Patent 5,397,638 to Miki, *et al.* (*hereinafter*, "Miki").

Applicants amended claims 11 and 12 are directed to a process that utilizes a coating composition that has a non-aromatic polyester polyol consisting of at least one (cyclo)aliphatic polyol having 3-6 hydroxyl groups and at least one carboxylic acid and a second hydroxyl functional binder clearly defined in the amended claims which is different from the non-aromatic polyester polyol and a crosslinking agent for the hydroxyl functional components.

Neither Miyabayashi nor Miki disclose or suggest such a composition. Miyabayashi only discloses a composition that contains a single polyester component and NOT two hydroxyl containing components as has been set forth in the amended claims. Again attention is called to Table 1, page 10 of the specification wherein a clear coat of a single polyester (Clear Coats 1-3) was compared to the coating composition of the invention (Clear Coats 4-6). The clear coats of the invention gave surprisingly superior properties to Clear Coats 1-3 which only contained the single polyester outside of the scope of the amended claims for polyester polyol (a). These Clear Coats 1-3 are representative of the coating taught by Miyabayashi.

Miki does not show or suggest the coating composition used in Applicants process. As the Examiner admits, Miki is a secondary reference that is relied upon to show that a method suitable for treating household electric appliances is also suitable for treating automotive bodies. Applicants do not agree with this conclusion since Miki relates to providing a resin-coated steel sheet having good electrocoatability and weldability. Miyabayashi does not discuss electrocoatability and weldability.

Also, Miki discusses the properties of the steel sheet and not the application of the resin. Miki does state that such sheets would be suitable for electrical appliances and automotive bodies. However, nowhere does Miki state that the

coating that is used in Applicants claimed process is suitable for automotive bodies. A person skilled in the art knows that not all resins can be used for coatings, and that not all resins can be used for automotive coatings.

Furthermore, Applicants invention is about coatings. Miki discusses steel sheets. Miki's steel sheets are coated with resins. That clearly does not mean that any and all resins, for example, that of Miyabayashi, can be used for automotive bodies. The steel sheets of Miki may be used for both applications provided the conditions discussed in Miki are met. But that does not mean that any and all resins, for example, that of Miyabayashi, on the steel sheets for electrical appliances can also be used for automotive bodies. From the Examiner's own admission, and even otherwise, Miyabayashi relates to coatings related to household electrical appliances and not automotive bodies.

One of ordinary skill in the art would not have been motivated and would not have a reasonable expectation of success to apply a method of Miyabayashi suitable for household electric appliances for automotive bodies because Miki teaches that a method suitable for household electric appliances comprising steps of coating zinc alloy-plated steel sheets with a chromate layer and resin film is also suitable for automotive bodies.

The amended claims are not obvious in view of Miyabayashi or Miki or the combination thereof.

CONCLUSION


In view of the above remarks, Applicants respectfully submit that stated grounds of rejection have been properly traversed, accommodated, or rendered moot and that a complete response has been made to the Office Action mailed February 13, 2006 and the Advisory Action mailed June 19, 2006.

Therefore, Applicants believe that the application stands in condition for allowance with withdrawal of all grounds of rejection. A Notice of Allowance is respectfully solicited. If the Examiner has questions regarding the application or the contents of this response, the Examiner is invited to contact the undersigned at the number provided.

The Applicants believe that a fee is due in accordance with this response for a two-month extension of the period for reply, however should any other fee be due that is unaccounted for, please charge such fee to Deposit Account No 04-1928 (E. I. du Pont de Nemours and Co.). Furthermore, if any extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. §1.136(a), and any fees required therefore are hereby authorized to be charged to our Deposit Account No. 04-1928.

Respectfully submitted,

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By: 
Hilmar L. Fricke
Attorney for Applicants
Reg. No.: 22,384
Telephone: (302) 984-6058
Facsimile: (302) 658-1192